

Claims

- 5    1. An aircraft landing gear including a noise-reducing element that includes an air-deflecting surface and an airflow-reducing region having more than 10 apertures through which, in use, air may pass, whereby the noise-reducing element is able in use to deflect air away from a noise-generating region of the landing gear, whilst allowing some air to pass through the element, thereby reducing the noise caused by the passing of the landing gear through the air.
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- 15    2. An aircraft landing gear according to claim 1, wherein the noise-reducing element includes at least 50 apertures.
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- 25    3. An aircraft landing gear according to claim 1, wherein the apertures are in the form of perforations.
- 30    4. An aircraft landing gear according to claim 1, wherein the arrangement of the apertures across the air-deflecting surface is non-uniform.
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- 40    5. An aircraft landing gear according to claim 1, wherein the air-deflecting surface includes a first region encompassing no apertures and a second region encompassing at least ten apertures, the area covered by the first region having a minimum dimension that is at least as great as the maximum dimension of the area covered by the second region.
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- 50    6. An aircraft landing gear according to claim 5, wherein the first region is near to the periphery of the air-deflecting surface.

7. An aircraft landing gear according to claim 1, wherein the airflow-reducing region is disposed between two regions defined by the air-deflecting surface.

5 8. An aircraft landing gear according to claim 1, wherein the airflow-reducing region covers an area, which would, if the airflow-reducing region were replaced with an extension of the air-deflecting surface, cover at least one stagnation point or cover at least the majority of a stagnation line.

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9. An aircraft landing gear according to claim 1, wherein the noise-reducing element is so arranged that in use it shields at least a part of the landing gear.

15 10. An aircraft landing gear according to claim 1, wherein the noise-reducing element is in the form of a fairing that covers at least a part of the landing gear.

20 11. An aircraft landing gear according to claim 1, wherein the landing gear is movable from a stored position to an operative position.

25 12. An aircraft landing gear including a fairing that includes a region through which, in use, air may pass, the fairing being so arranged that in use some air is deflected away from a noise-generating region of the landing gear and some air passes through the fairing, thereby reducing the noise caused by the passing of the landing gear through the air.

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13. An aircraft landing gear according to claim 12, wherein the region in the fairing that permits air to flow therethrough is defined by a multiplicity of holes in the fairing.

14. An aircraft including an aircraft landing gear, the landing gear including a noise-reducing element that includes an air-deflecting surface and an airflow-reducing region
- 5 having more than 10 apertures through which, in use, air may pass, whereby the noise-reducing element is able in use to deflect air away from a noise-generating region of the landing gear, whilst allowing some air to pass through the element, thereby reducing the noise caused by the passing of the
- 10 landing gear through the air.
15. An aircraft including an aircraft landing gear, the landing gear including a fairing that includes a region through which, in use, air may pass, the fairing being so
- 15 arranged that in use some air is deflected away from a noise-generating region of the landing gear and some air passes through the fairing, thereby reducing the noise caused by the passing of the landing gear through the air.
- 20 16. A noise-reducing element for use on an aircraft landing gear, the noise-reducing element including an air-deflecting surface and an airflow-reducing region through which, in use, air may pass, whereby the noise-reducing element is able in use to deflect air away from a noise-generating region of the
- 25 landing gear, whilst allowing some air to pass through the element, thereby reducing the noise caused by the passing of the landing gear through the air.
17. A noise-reducing element that includes an air-deflecting surface and an airflow-reducing region having more than 10
- 30 apertures through which, in use, air may pass, wherein the noise-reducing element is configured to be mountable on an aircraft landing gear so that in use the noise-reducing element is able to deflect air away from a noise-generating

region of the landing gear, whilst allowing some air to pass through the element, thereby enabling the noise caused by the passing of the landing gear through the air to be reduced.

- 5    18. A fairing suitable for shielding a noise-generating region of an aircraft, the fairing comprising a generally convexly shaped portion for presentation against an airflow so that in use air approaching the fairing is deflected by the fairing away from the noise-generating region, wherein the
- 10   generally convexly shaped portion includes a perforated region defined by a multiplicity of round passageways that extend from one side of the fairing to the other.
- 15   19. A method of reducing noise caused by a landing gear on an aircraft including a step of mounting a noise-reducing element on or in relation to a landing gear, wherein the noise-reducing element includes an air-deflecting surface and an airflow-reducing region having more than 10 apertures through which, in use, air may pass, whereby the noise-reducing element is able in use to deflect air away from a noise-generating region of the landing gear, whilst allowing some air to pass through the element, thereby reducing the noise caused by the passing of the landing gear through the air.
- 20   20. A method of reducing noise caused by a landing gear on an aircraft including a step of mounting a fairing on or in relation to a landing gear, wherein the fairing includes a region through which, in use, air may pass, and the fairing is so arranged that in use some air is deflected away from a noise-generating region of the landing gear and some air passes through the fairing, thereby reducing the noise caused by the passing of the landing gear through the air.